

REMARKS

This is intended as a full and complete response to the Office Action dated February 25, 2004, having a shortened statutory period for response set to expire on May 25, 2004. Claims 4, 6-9, 11-13, 15, 16, 18-28, 30, 31, 33-38, 40, 41, 43, 45-51 and 53-56 remain pending in the application and are shown above. The Examiner has allowed claims 50, 51 and 53. Claims 21, 36, 40 and 48 are objected to but would be allowable if rewritten in independent form. Claims 4, 6-9, 11-13, 15, 16, 18-20, 22-28, 30, 31, 33-35, 37, 38, 40, 41, 43, 45-47, 49 and 54-56 stand rejected. Applicants have amended claims 20, 35 and 47 to correct matters of form only. As such, these proposed amendments are not intended to narrow the claims or otherwise limit the scope of equivalents thereof. Please reconsider the rejected claims for reasons discussed below.

Claims 4, 6, 11, 12, 18, 23, 24, 30, 38, 40, and 41 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Chavet* (WO 97/00928) which appears to be the equivalent of *Chavet* (U.S. Patent No. 6,072,065). Claims 7-9, 13, 15, 16, 19-20, 22-28, 31, 33-35, 37, 43, 45-47, 49 and 54-56 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chavet* WO 97/00928 or 6,072,065. The Examiner asserts that *Chavet* discloses a process for refining used oil by contacting the oil with an alkaline base in the presence of ethylene glycol, and then washed with water. The Examiner further asserts that *Chavet* discloses separating the water/contaminants to produce clean used oil which is further purified in a distillation zone.

Applicants respectfully traverse the rejection. *Chavet* discloses a process for removing contaminants from base oils, not used motor oil and not used petroleum distillate. (See *Chavet* '065 at col. 3, lines 6-26.) *Chavet* discloses distilling a used oil to produce a distillate that is "a small quantity of gas-oil fraction and a much larger amount of vacuum distillate, corresponding to more than 60% of the starting used oil." (See *Chavet* '065 at col. 3, lines 33-45.) This means about 40% of the used oil has been removed and will not be treated in the subsequent steps. *Chavet* then discloses contacting the resulting distillate, i.e. the 60% fraction not the used oil, with an alkaline reactant in the presence of a solvent. (See *Chavet* '065 at col. 3, lines 11-13.) *Chavet*

stresses the importance of this distillation step by stating, "The above preliminary distillation step is of special importance as it enables to separate the near total amount of the tarry material." (See *Chavet* '065 at col. 3, ll. 46-48.) This tarry material refers to the 40% fraction that was removed by the preliminary distillation step. Accordingly, *Chavet* does not teach, show, or suggest a method for purifying used motor oil, comprising: mixing the used motor oil with a phase transfer catalyst in the presence of a base compound, wherein the phase transfer catalyst comprises a glycol; mixing the used motor oil with a solvent to dissolve contaminants from the used motor oil into the solvent; and then separating the solvent from the used motor oil, as recited in claim 4 and those dependent therefrom. *Chavet* also does not teach, show, or suggest a method for removing contaminants from a used petroleum distillate as recited in claim 23 and those dependent therefrom. *Chavet* further does not teach, show, or suggest a method for removing contaminants from used motor oil as recited in claim 38 and those dependent therefrom. For these reasons, Applicants respectfully request withdrawal of the rejections and allowance of the claims.

Furthermore, *Chavet* teaches away from the claimed invention. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be led in a direction divergent from the path took by the applicant. See *In re Gurley*, 27 F.3d 551, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994). As mentioned above, *Chavet* removes contaminants from the vacuum distillate and teaches that the preliminary distillation of the used oil (to produce this vacuum distillate) "is of *special* importance as it enables to separate the near total amount of the tarry material." (emphasis added) (See *Chavet* '065 at col. 3, ll. 46-48.) *Chavet*, therefore, teaches away from treating the used oil as recited in the claims. As such, *Chavet* would not motivate or suggest to a person of ordinary skill in the art to treat used oil with a phase transfer catalyst in the presence of a base compound, as recited in the claims.

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Therefore, *Chavet* does not teach or suggest the claimed invention. Having addressed all issues set out in the Office Action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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